



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Mannava, et al.)
Serial No: 08/719,341) Group Art Unit: 3745
Filed: September 25, 1996) Examiner: C. Verdier
For: LASER SHOCK PEENED GAS TURBINE)
ENGINE COMPRESSOR AIRFOIL EDGES)

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JCS
8/20/98

Commissioner of Patents and Trademarks
Washington, D.C. 20231

DECLARATION UNDER 37 C.F.R. 1.131(b)

Dear Sir:

Seetharamaiah Mannava, James E. Rhoda, Herbert Halila, Larry G. Jacobs, Edward A. Rainous, the applicants in the above-identified patent application, declare as follows:

1. That sometime prior to January 17, 1995, Seetharamaiah Mannava, James E. Rhoda, Herbert Halila, Larry G. Jacobs, and Edward A. Rainous, at the time engineers at General Electric Aircraft Engines in Cincinnati Ohio, conceived of a gas turbine engine compressor airfoil having at least one laser shock peened surface along the leading and/or trailing edges of the airfoil and a region of deep compressive residual stresses imparted by laser shock peening (LSP) extending from the laser shock peened surface into the airfoil, and preferably, the airfoil has laser shock peened surfaces on both suction and pressure sides of the airfoil wherein both sides were simultaneously laser shock peened.
2. That Seetharamaiah Mannava did draft an Invention Disclosure entitled "Enhanced Compressor Blade for Aircraft Engines" signed by Seetharamaiah Mannava, James E. Rhoda, Herbert Halila, Larry G. Jacobs, and Edward A. Rainous on April 25, 1994 as evidenced by Exhibit A attached hereto. Exhibit A includes a sketch illustrating the a gas turbine engine compressor airfoil having a laser shock peened surface along the leading edge of the airfoil;
3. That after the Invention Disclosure was signed it was disclosed to the General Electric Company at General Electric Aircraft Engines no later than May 14, 1994 as noted by the date a docket was opened for the disclosure as shown in

Exhibit A. The applicants disclosed the concept to the General Electric Company, the assignee of the present application, on a confidential basis in accordance with their legal obligations to do so as employees of the General Electric Company;

4. That Seetharamaiah Mannava, James E. Rhoda, Herbert Halila, Larry G. Jacobs, and Edward A. Rainous, continued to diligently develop the compressor airfoil having a laser shock peened leading edge and methods of its manufacture after May 14, 1994 up until the filing of the original parent application of the subject Patent Application. That during this period, starting around January 1995, some of the Applicants did assist patent attorney Steven J. Rosen in drafting, reviewing, and filing the parent application of the subject Patent Application;

4. That on March 1, 1995, Herbert Halila, Larry G. Jacobs, and Edward A. Rainous, did sign and execute the Parent Application, Serial No: 08/399,285, of the present Patent Application and did assign all rights in the Patent Application and any subsequently issued Patent to their employer, the General Electric Company; and

5. That on March 3, 1995, the Applicants, Seetharamaiah Mannava and James E. Rhoda did sign and execute the Parent Application, Serial No: 08/399,285, of the present Patent Application and did assign all rights in the Patent Application and any subsequently issued Patent to their employer, the General Electric Company.

The declarants further state that the above statements were made with the knowledge that willful false statements and the like are punishable by fine and/or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that any such willful false statement may jeopardize the validity of this application or any patent resulting therefrom.

Date: 8/3/98

Seetharamaiah Mannava
Seetharamaiah Mannava

Date: 8/3/98

James E. Rhoda
James E. Rhoda

Date: 7/29/98

Herbert Halila

Herbert Halila

Date: 8/6/98

Larry G. Jacobs
Larry G. Jacobs

Date: 8/3/98

Edward A. Rainous
Edward A. Rainous